

ABSTRACT OF THE DISCLOSURE

A mask pattern includes a main pattern to be transferred through exposure and an auxiliary pattern that diffracts exposing light and is not transferred through the exposure.

The main pattern is made from a shielding portion, a phase shifter or a combination of a

5 semi-shielding portion or a shielding portion and a phase shifter. The auxiliary pattern is

made from a shielding portion or a semi-shielding portion. The auxiliary pattern is

disposed in a position away from the main pattern by a distance $M \times (\lambda / (2 \times \sin \phi))$ or $M \times$

$((\lambda / (2 \times \sin \phi)) + (\lambda / (NA + \sin \phi)))$, wherein λ indicates a wavelength of the exposing light,

M and NA indicate magnification and numerical aperture of a reduction projection optical

10 system of an aligner and ϕ indicates an oblique incident angle.